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Substitute for form 1449/PTO

Sheet

Examiner

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known **Application Number** 10/743,917 Filing Date **24 DECEMBER 2003** First Named Inventor <u>Johann M. Schleier-Smith</u> Art Unit 1734 Examiner Name Attorney Docket Number MR1735-83/DIV

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No.	Document Number Number-Kind Code ^{2 (F known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
MAL	Α	^{US-} 6,216,631	04/17/2001	Wissner-Gross	
n M	В	^{US-} 6,216,538	04/17/2001	Yasuda, et al.	
MI	С	^{US-} 6,055,859	05/02/2000	Kozuka, et al.	
M	D	^{US-} 6,029,518	02/29/2000	Oeftering	
Mn	E	^{US-} 5,951,456	09/14/1999	Scott	
MA	F	^{US-} 5,831,166	11/03/1998	Kozuka, et al.	
MAL	G	^{US-} 5,711,888	01/27/1998	Trampler, et al.	
WILL	Н	US- 5,484,537	01/16/1996	Whitworth	
MAL	ī	^{US-} 5,164,094	11/17/1992	Stuckart	
MM	J	^{US-} 5,006,266	04/09/1991	Schram	
MA	Κ	^{US-} 4,998,553	03/12/1991	Schram	
MAL	L.	^{US-} RE33,524	01/22/1991	Schram	
MML.	М	^{US-} 4,957,606	09/18/1990	Juvan	
MAL	N	US- 4,879,011	11/07/1989	Schram	
Mr	0	US- 4,877,516	10/31/1989	Schram	
use	Р	^{US-} 4,759,775	07/26/1988	Peterson, et al.	
MARC	Q	^{US-} 4,743,361	05/10/1988	Schram	
MARE	R	^{US-} 4,693,879	09/15/1987	Yoshimura, et al.	
un'	S	^{US-} 4,612,018	09/16/1986	Tsuboi, et al.	

	FOREIGN PATENT DOCUMENTS										
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages						
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	Τ°					
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Substitute for form 1449/PTO	Complete if Known			
	Application Number	10/743,917		
INFORMATION DISCLOSURE	Filing Date	24 DECEMBER 2003		
	First Named Inventor	Johann M. Schleier-Smith		
STATEMENT BY APPLICANT	Art Unit	1734		
(Use as many sheets as necessary)	Examiner Name			
0) 1 2	Attomey Docket Number	MR1735-83/DIV		

			U. S. PATENT	DOCUMENTS	
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IMI	Т	US- 4,523,682	06/18/1985	Barmatz, et al.	
MA	U	^{US-} 4,055,491	10/25/1977	Porath-Furedi	
MAZ	V	US- 6,335,059	01/01/2002	Wissner-Gross	
MAZ	W	^{US-} 5,545,367	08/13/1996	Bae, et al.	
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	FOREIGN PATENT DOCUMENTS									
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages					
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Examiner Date Signature *EXAMINER: Initial if reference considered, Whether of not-citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the senal number of the patent document. Nind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 If possible. Applicant is to place a check mark here if English language

Translation is attached.

Transition is attached.

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Application Number 10/743,917

INFORMATION DISCLOSURE Filing Date 24 December 2003

First Named Inventor Johann M. Schleier-Smith

Art Unit 1734

Examiner Name

Attorney Docket Number

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Sheet

Examiner

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		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date; page(s), volume-issue number(s), publisher, city and/or country where published.	T²
MM	AA	T.B. Benjamin and F. Ursell. The stability of the plane free surface of a liquid in vertical periodic motion. PROC. R. SOC. LONDON, SER A, 225:505-515, 1954.	
MR	AB	MC. Cross and P.C. Hohenberg. Pattern formation outside of equilibrium. REV. MOD. PHYS., 65(3):851-1089, 1993.	
M	AC	E.A. Cerda and E. Tirapegui. Faraday's instability in viscous fluids. PHYS. REV. LETT., 78(5):859-862, 1997.	
MAC	AD	E.A. Cerda and E. Tirapegui. Faraday's instability in viscous fluids. J. FLUID MECH, 368:195-228,1998.	
un	AE	P. Chen and J. Vinals. Amplitude equation and pattern selection in Faraday waves. PHYS. REV. E, 60(1):559-570, 1999.	
MAN	AF	W.S. Edwards and S. Fauve. Patterns and quasi-patterns in the Faraday experiment. J. FLUID MECH., 278:123-148, 1994.	
MA	AG	J. Fineberg and O. Lioubashevski. Propagating solitary waves in highly dissipative driven fluids. PHYSICA A, 249:10-17, 1998.	
Mr	АН	Alexander Groisman and Victor Steinberg. Solitary vortex pairs in viscoelastic couette flow. PHYS REV. LETTER., 78(8):1460-1463, 1997.	
MK	, AI	S. Kumar. Parametrically driven surface waves in viscoelastic liquids. PHYSICS OF FLUIDS, 11(8):1970-1981, 1999.	
MA	AJ	S. Fauve, K. Kumar, C. Laroche, D. Beysens, and Y. Garrabos. Parametric instability of a liquid-vapor interface close to the critical point. PHYS. REV. LETT., 68(21):3160-3163, 1992.	

Signature Considered C

Date ·

Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation Is attached.

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	te for form 1449/PTO			e required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known			
Substitut	10 101 101111 1443/1 10			Application Number	10/743,917		
INFO	DRMATION	DIS	CLOSURE	Filing Date	24 December 2003		
STA	TEMENT B	BY A	PPLICANT	First Named Inventor	Johann M. Schleier-Smith		
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	(USB 83 many She	er2 92 U	acessary)	Examiner Name			
Sheet	4	of	5	Attorney Docket Number	MR1735-83/DIV		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
MM	AK	O. Lioubashevski, Y. Hamiel, A. Agnon, Z. Reches, and J. Fineberg, Oscillons and propagating solitary waves in a vertically vibrated colloidal suspension. PHYS. REV. LETT., 83(16):3190–3193. 1999.	
M	AL	S. Kumar. Mechanism for Faraday instability in viscous liquids. PHYS. REV. E, 62(1):1416-1419,2000.	
MM	AM	Ron Lifshitz and Dean M. Petrich. Theoretical model for Faraday waves with multiple-frequency forcing. PHYS. REV. LETT., 79(7):1261-1264, 1997.	
MIL	AN	F. Melo, P.B. Umbanhowar, and H.L. Swinney. Hexagons, Kinks, and Disorder in Oscillated Granular Layers. PHYS REV. LETT., 75(21):3838-3841, 1994.	
M	AO	T. Pritchett and J.K. Kim. A low-cost apparatus for the production of surface wave patterns in a vertically oscillating fluid. AM. J. PHYS., 66(9):830-833, 1998.	
MM	AP	Uri Raviv, Pierre Laurat, and Jacob Klein. Fluidity of water confined to subnanometre films. NATURE, 413:51-54, 2001.	
ÎM	AQ	P.B. Umbanhowar, F. Melo, and H.L. Swinney. Localized excitations in a vertically vibrated granular layer. NATURE, 382(29):793-796, 1996.	
M	AR	Chen Weizhong and Wei Ronjue. Primary instabilities in Faraday waves under an arbitrarily periodic excitation. PHYS. REV. E, 57(4):4350-4353,1998.	
Mor	AS	Xinlong Wang, and Ronjue Wei. Oscillatory patterns composed of parametrically excited surface-wave solitons. PHYS. REV. E, 57(2):2405-2410, 1998.	
MAL	ΑT	A. Wernet, C. Wagener, D. Papathanassiou, H.W. Muller, and K. Knorr. Amplitude measurements of Faraday waves. PHYS. REV. E, 63(036305): 1-9, 2001.	

Examiner Signature	MI	MARando	Date Considered	5/8/0	K

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INFO	ORMATION	DIS	CLOSURE	Filing Date	24 December 2003		
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Sheet	5	of	5	Attorney Docket Number	MR1735-83/DIV		

		NON PATENT LITERATURE DOCUMENTS	
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MA	ΑU	Mary Silber and Anne C. Skeldon. Parametrically excited surface waves: Two-frequency forcing, normal form symmetries, and pattern selection. PHYS. REV. E, 59(5):5446-5456, 1999.	
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